CHAPTER 3
PREPARATION FOR OPERATION (PMCS)
LESSON PLAN 3

METHOD:

Conference, demonstration, and practical exercise

TIME ALLOTTED:

1.0 hour

COURSE PRESENTED TO:

a. LAV-25 crews
b. Instructors
c. TAVSC personnel

TOOLS, EQUIPMENT, AND MATERIALS (Per Vehicle Crew):

a. One PGS set
b. TM 08594A-12&P
c. Expendable/durable items (see Appendix D, TM 08594A-12&P)
d. TM 4700-15/1

PERSONNEL:

a. Primary instructor
b. Assistant instructor

INSTRUCTIONAL AIDS:

a. Overhead projector
b. Viewgraphs (Appendix A)

REFERENCES:

a. TM 08594A-12&P, Chapter 3
b. TM 4700-15/1

APPENDICES:

Appendix A. Viewgraphs

3-1. INTRODUCTION. (5 minutes)

Note. Show Slide 1.

a. **Reason.** Training hours are lost when unit personnel draw training equipment that is incomplete or unserviceable. Many of these hours could be saved if unit personnel know what to look for and how to check the equipment. During this class you will learn what to look for when conducting before operation preventive maintenance checks and services (PMCS) of PGS equipment.

Note. Show Slide 2.

b. **Training Objective.** Given a PGS set packed in its storage cases and TM 08594A-12&P, you will demonstrate the ability to properly handle, identify, and conduct before operation PMCS of PGS components IAW TM 08594A-12&P, Chapter 3.

c. **Procedure.** During this block of instruction we will discuss how to handle, transport, and inspect PGS components before installation of the system. You will have an assistant instructor for the practical exercise portion of this class.

3-2. CONFERENCE/DEMONSTRATION/PRACTICAL EXERCISE. (40 minutes)

Notes.
1. The primary instructor now releases the student crews to their assistant instructors.
2. Prior to students' arrival, ensure an assistant instructor is assigned to each training station.
3. Direct students to their appropriate training station.
4. Each assistant instructor is to conduct a safety briefing for his small group outlining safety concerns and requirements when handling PGS components.
5. Whenever possible, have the students serve as demonstrators during small group instruction. Have one student read the procedures while another student performs the task. To ensure all students get equal hands-on time, rotate the reading and performance responsibilities.

a. **Safety Concerns and Requirements.**

(1) Always use two people when handling the storage cases.
(2) Ensure the storage cases are closed and secured in vehicles during transportation.
(3) When handling PGS components, use care and always transport components in the appropriate container.
(4) Do not stack PGS storage cases more than four high.

3-2. CONFERENCE/DEMONSTRATION/PRACTICAL EXERCISES (Con't).

b. **Initial Inspection of PGS.**

(1) To prevent damage, PGS components should not be stored out of the storage cases. Do not remove equipment from the case until needed for installation.
(2) During training, store the storage containers IAW unit SOP to prevent damage.
(3) Upon receipt of a PGS set, use the inventory checklist in each storage case to ensure all components are present.
(4) Check the general condition and cleanliness of the equipment.
(5) Inspect the storage cases for missing or broken handles, locking latches, and hinges to ensure equipment will be secure during transportation.

c. **Before Operation Preventive Maintenance Checks and Services (PMCS).**

(1) **General PMCS procedures.** If any deficiencies are discovered during visual inspection, ensure you:

(a) Consult TM 08594A-12&P, Chapter 3 to determine if component is considered Not Mission Capable (NMC).
(b) Tag component with the problem discovered in accordance with instructions in TM 4700-15/1.
(c) Report failure in accordance with instructions in TM 4700-15/1.
(d) Return component to Training Audio Visual Support Center (TAVSC).

(2) **General inspection checks.** Perform the following general inspection checks on all exterior and interior components:

(a) Visually inspect components for damaged or missing parts.
(b) Inspect connectors for damage, foreign objects, and bent or damaged pins.
(c) Verify all decals and markings are present and legible.
(d) Inspect components for damaged or missing dust caps.

(3) **Visual inspection of exterior components.**

(a) Transceiver unit.

Caution. Always ensure that transceiver unit locking handle is locked to mounting bracket. Failure to follow this caution may result in transceiver unit falling out of mounting bracket and becoming damaged.

1. Check lens for damage or cracks. If the lens is dirty, wipe with lens paper moistened with lens cleaning compound.

2. Inspect locking handle for damage.
3. Inspect expansion rings for damage.
4. Check that the moisture indicator color is blue or light blue. Red or pink indicates moisture.
5. Check if the shock sensor has been tripped. Transceiver unit will rattle when gently shaken if shock sensor has been tripped.
6. Check locking handle and mounting bracket strap for damage.
7. Inspect rubber pads of mounting bracket for damage.

(b) Rear retro detector unit/hull defilade detector unit bracket assembly.

1. Inspect rubber pads of mounting bracket for damage.
2. Check reflectors and detectors for damage or cracks.
3. Check strobe light for damage.

(c) Front retro detector unit/hull defilade detector unit assemblies.

1. Check reflectors and detectors for damage or cracks.
2. Check strobe light for damage.
3. Inspect RSI antenna, cable, and cable connector for damage (right-front bracket only).
4. Inspect rubber pads of mounting bracket for damage.

(4) **Visual inspection of interior components.**

(a) TBOS eyepiece unit (gunner's and commander's).

1. Check lens for damage or cracks. If lens is dirty, wipe with lens paper moistened with lens cleaning compound.
2. Inspect connector for damaged or missing dust cap.

Warning. DO NOT use browpad if foam is damaged. Failure to follow this warning may result in injury or blindness to personnel.

(b) Commander browbad. Inspect browpad for damaged foam.

(c) Vehicle interface assembly.

Note. Vehicle interface assembly consists of vehicle interface unit; expansion unit; TBOS driver unit, TBOS video mixer unit, target computer unit, remote system interface (RSI) unit; W2, W3, W4, W5, and W6 cables; and interface box.

1. Check that the moisture indicators color is blue or light blue. Red or pink color indicates moisture.
2. Check that each unit is securely attached within bracket.
3. Inspect cables for damage.
4. Inspect connectors on units and both ends of cables for damage, foreign objects, and bent or damaged pins.
5. Inspect cables for damaged or missing dust caps.
6. Inspect cables for damaged or missing velcro straps.

(d) Control panel.

1. Check that moisture indicator color is blue or light blue. Red or pink indicates moisture.
2. Check pushbuttons for damage.
3. Inspect cable for damage.
4. Inspect cable for damaged or missing dust cap.
5. Check that eject button moves freely.

(e) Shorting plug. Check for damaged or missing velcro strap.

(5) **Visual inspection of cables.**

Note. The remaining cables are W1, W7, W8, W9, W10, W11, W12, W13, and W14.

(a) General inspection checks. Perform the following general inspection checks on all cables:

1. Inspect cable material for damage.
2. Inspect for damaged or missing dust caps.
3. Inspect connectors for damage, foreign objects, and bent or damaged pins.
4. Verify all labels and markings are present and legible.
5. Inspect cables for missing or damaged velcro straps.

(b) W1, W7, and W8 cables. Inspect for damaged or missing magnets.

3-3. FINAL REVIEW. (5 minutes)

a. **Student Questions.**

Note. Show Slide 3.

b. **Summary of Main Teaching Points.**

(1) Safety concerns and requirements.
(2) Inspection of PGS:

(a) Upon receipt
(b) Exterior components
(c) Interior components
(d) Cables

Note. Show Slide 4.

c. **Closing Statement.** This block of instruction has taught you how to inspect, handle, and identify deficiencies with PGS components before installation. The knowledge gained in this class will help your unit train more effectively with PGS.

APPENDIX A
TO LESSON PLAN 3

PREPARATION FOR OPERATION (PMCS)

VIEWGRAPHS